Peptide Storage & Handling Guidelines

Overview

Peptides are delicate biological molecules that can degrade if exposed to heat, light, moisture, or contamination. Proper storage and handling practices are important to maintain peptide stability and integrity for laboratory research purposes.

Storage of Lyophilized (Unmixed) Peptides

Lyophilized peptides are generally more stable than peptides in solution.

Recommended storage conditions:

- **Temperature:** 2°C – 8°C (refrigerator)
- **Long-term storage:** -20°C freezer
- **Environment:** Dry, dark conditions
- **Light exposure:** Minimise direct light exposure
- **Moisture:** Keep vials sealed until use

When stored correctly, lyophilized peptides may remain stable for extended periods.

Storage After Reconstitution

Once peptides are reconstituted into solution, they become more sensitive to degradation.

Recommended storage conditions:

- **Temperature:** 2°C – 8°C (refrigerated)
- **Light:** Protect from direct light
- **Handling:** Avoid excessive agitation or shaking
- **Sterility:** Maintain sterile handling practices

Prepared solutions are generally more stable when refrigerated and protected from contamination.

Freezing Guidelines

For extended storage, some peptide solutions may be stored frozen.

Best practices include:

- Store at **-20°C or colder**
- Avoid **repeated freeze–thaw cycles**
- If long-term storage is required, solutions may be divided into smaller aliquots before freezing

Repeated freezing and thawing can reduce peptide stability.

Handling Recommendations

To help maintain peptide integrity:

- Use sterile laboratory techniques when handling
- Avoid shaking vials vigorously
- Gently swirl solutions to mix
- Minimise exposure to air and contaminants
- Use clean, sterile equipment when handling peptides

Environmental Factors That Can Degrade Peptides

Peptides may degrade faster when exposed to:

- Heat
- Ultraviolet light
- Moisture
- Oxygen exposure
- Contamination

Maintaining proper storage conditions helps reduce degradation risks.

Important Compliance Notice

⚠️ **Research Use Only**

This material is supplied strictly for laboratory research purposes.

Peptides referenced in this document are **not approved by the Therapeutic Goods Administration (TGA)** for human or veterinary use.

Nothing in this document should be interpreted as medical advice, dosing guidance, or instructions for administration.